

A New Name of *Bolbitis* from China

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ABSTRACT.—During preparation of the account of Bolbitidaceae for the flora of China, it was noticed that a species name used in some earlier treatments (*Bolbitis yunnanensis* Ching) is based on an illegitimate combination. A new name for it is proposed: *Bolbitis* × *multipinna* F. G. Wang, K. Iwats. & F. W. Xing.

KEY WORDS.—*Bolbitis*, Bolbitidaceae, taxonomy, new name

Bolbitis was established by Schott (1834) for a group of species in *Acrostichum* with a creeping rhizome and anastomosing veins. The genus is pantropical with about 80 species, which has been placed in Lomariopsidaceae, Dennstaedtiaceae, Dryopteridaceae and Bolbitidaceae (Ching, 1931; Hennipman, 1977; Holttum, 1954; Smith *et al.*, 2006; Tryon and Tryon, 1982). Hennipman (1977) monographed the genus and recognized 44 species and 13 hybrids, with 12 taxa listed as species *dubiae*. In a revision of the Chinese species, Dong and Zhang (2005) followed Iwatsuki (1959) and Hennipman (1977) in merging *Egenolfia* Schott with *Bolbitis* based on herbarium studies, field observations, and SEM studies of the spores.

Egenolfia × *yunnanensis* Ching *et* Chiu, a natural hybrid, was described from Jinghong, Yunnan, China. It was reported to be a hybrid between *Bolbitis angustipinna* (Hayata) H. Ito and *Egenolfia sinensis* (Baker) Maxon (Ching, 1983). This interspecific hybrid had previously been described by Hennipman (1977) as *Bolbitis angustipinna* × *B. sinensis* from Xishuangbanna, Yunnan, China. In a taxonomic revision of the genus in China, Dong and Zhang (2005) listed *Egenolfia* × *yunnanensis* under the hybrid formula name *Bolbitis angustipinna* × *B. sinensis* but did not provide a nothospecific name in *Bolbitis*.

When *Egenolfia* × *yunnanensis* is transferred to *Bolbitis*, as *Bolbitis* × *yunnanensis*, the resulting name is illegitimate under Article 53.1 of the St. Louis code (McNeill *et al.*, 2006) because an earlier homonym exists:

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Bolbitis yunnanensis Ching (1983), described from Simao, Yunnan, China (Wang, 1999). Therefore, a new name is required.

Bolbitis* × *multipinna* F. G. Wang, K. Iwats. & F. W. Xing, *nom. nov.

Egenolfia × *yunnanensis* Ching et Chiu in Ching and Wang, *Acta Phytotax. Sin.* 216-217. 1983, *non* *Bolbitis yunnanensis* Ching in Ching and Wang, *Acta Phytotax. Sin.* 21(2): 214. 1983. TYPE.—China. Yunnan austr.: Xushuangbanna, *Yunnan Complex Exped.* 5775 in dense forest, alt. 850 m (holotype, PE!; isotype, KUN).

Distribution.—Endemic to China: Yunnan.

Habitat and Ecology.—Terrestrial in dense rain forests. Altitude 600–850 m.

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LITERATURE CITED

- CHING, R. C. 1931. On the genus *Egenolfia* Schott. *Bull. Fan Mem. Inst. Biol.* 2:297–317.
- CHING, R. C. and C. H. WANG. 1983. *Materiae ad Floram Filicum Sinensium*. *Acta Phytotax. Sin.* 21(2):211–218.
- DONG, S. Y. and X. C. ZHANG. 2005. A taxonomic revision of the fern genus *Bolbitis* (Bolbitidaceae) from China. *Acta Phytotax. Sinica* 43(2):97–114.
- HENNIPMAN, E. 1977. A monograph of the fern genus *Bolbitis* (Lomariopsidaceae). *Leiden Bot. Ser.* 2:1–323.
- HOLTUM, R. E. 1954. A revised flora of Malaya II. Ferns of Malaya. Authority Government Printing Office, Singapore. 461–470.
- IWATSUKI, K. 1959. Taxonomic studies of Pteridophyta IV. Emendation of *Bolbitis*, with special reference to the Far Eastern species. *Acta Phytotax. Geobot.* 18:44–59.
- MCNEILL, J., F. R. BARRIE, H. M. BURDET, V. DEMOULIN, D. L. HAWKSWORTH, K. MARHOLD, D. H. NICOLSON, J. PRADO, P. C. SILVA, J. E. SKOG, J. H. WIERSEMA and N. J. TURLAND. (eds.) 2006. International Code of Botanical Nomenclature (Vienna Code) adopted by the Seventeenth International Botanical Congress Vienna, Austria, July 2005. A. R. G. Gantner Verlag, Ruggell, Liechtenstein. [Regnum Veg. 146].
- SCHOTT, H. W. 1834. *Genera Filicum*. Vienna.
- SMITH, A. R., K. M. PRYER, E. SCHUETTPELZ, P. KORALL, H. SCHNEIDER and P. G. WOLF. 2006. A classification for extant ferns. *Taxon* 55(3):705–731.
- TRYON, R. M. and A. F. TRYON. 1982. Ferns and allied plants, with special reference to tropical America. Springer-Verlag, New York.
- WANG, C. H. 1999. Bolbitidaceae. In: Wu, S. H. *Flora Reipublicae Popularis Sinicae* 6(1): 104–115. Beijing. Science Press.